



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,468	02/07/2001	Brian Bruun	0459-0527P	2451

2292 7590 10/30/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SCHLAK, DANIEL K

ART UNIT	PAPER NUMBER
----------	--------------

3653

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,468

Applicant(s)

BRUUN ET AL.

Examiner

Daniel K Schlak

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-90 is/are pending in the application.
- 4a) Of the above claim(s) 71-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-56 and 60-70 is/are rejected.
- 7) ☒ Claim(s) 57-59 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 71-90 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups II and III, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 18.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

Claim 1 is objected to because of the following informalities: the preamble mentions a method using a system comprising conveyors, and then goes into step (a) without a transitional word such as "comprising" or "consisting of". Thus, as it is written, the method does not comprise any steps. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 46-56, 60-62, 69, and 70 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2,224,147 to Canziani.

Canziani teaches a method of conveying items using a system comprising conveyors and at least one storage arrangement, comprising loading items onto trays at a loading station of a first conveyor (comprising conveyor segments 18, 3, 9), each item identified and assigned to a destination belonging to a group of predefined destinations, to create articles, each article consisting of a tray carrying at least one item. The Examiner has interpreted the carriages of Canziani to be "trays", as certainly, in order to hold luggage, there must be some flat surface upon which the luggage is placed. Thus, this flat surface is deemed here to be a tray.

Canziani further teaches conveying articles on the first conveyor from the loading station to a storage arrangement comprising a plurality of storing units (22) in each of which a plurality of articles may be stored. Canziani teaches moving most of the articles from a first conveyor into storage units of the arrangement, and determining to which set of articles belonging to a predefined group of sets each of said articles belongs according to the destination of the at least one item of the article, at least one of the plurality of storage units being assigned to each of said sets (by departure flight number).

Canziani further teaches storing each article in one of the storage units, the unit being assigned to the set to which the article belongs (by flight number), and allocating a discharge station of a second conveyor, moving the articles from the storage

Art Unit: 3653

arrangement to predefined destinations, conveying the articles to a discharge station, and discharging the items from the trays at the discharge station.

Substantially all of the articles which are entered into the article storage arrangement in step (c) are entered into the article storage arrangement. The predetermined sets of articles solely comprise articles of which the items are assigned to the same destination.

As the destinations, and sets, each have their own departure time, the time range of any of the sets does not overlap the predetermined time range of any of the other sets, except for when two flights are scheduled for the same time, which is not always the case.

Canziani's method assigns at least one of the plurality of storage units to a predefined set of articles solely comprising articles of which the items are assigned to a given destination (as described above), and moves articles assigned to the destination from the storage unit assigned to the set of articles of which the predefined time range includes the departure time of the destination.

The discharge station of Canziani is a temporary allocation during which a subset of the total expected number being assigned to the destination is discharged at the discharge station, the subset being selected from the items stored in the article storage means (in other words, the items are loaded into different compartments of a wheeled cart, or an airplane, post-discharge). The total number of items for a given destination comprises a plurality of temporary allocations (in the cart or in the airplane itself), and the whole subset of items is stored in one container (the airplane) means.

The control means associated with the system of Canziani teaches producing an output comprising data that are significant for the identity of each of the items within the subset of items. Each of the storage units are designed for permitting a plurality of articles to be disposed aligned in abutting proximity to each other longitudinally along a generally horizontally elongated storage bay, each storage unit comprising a frame defining said storage bay and support means (conveyor surface) for supporting the articles to be stored in the storage unit.

In Canziani, each article is labeled with a unique, automatically readable ID mark and the system comprises reading means for reading the ID marks and producing an output accordingly, the reading means being situated at at least one position along the path, the method further comprises the steps of reading the ID marks of each passing article, producing an output from the reading means according to each of the ID marks read, and communicating said output to the control means of the system. Then ID mark is placed on the tray and the control means comprises a central control unit comprising means for storing and retrieving data concerning the identity of each of the items being conveyed by the system and data concerning the identity of the tray. A separation unit is provided at the end of conveyor segment (3) so that articles are transferred to the separation unit from the first conveyor and articles may be transferred from the separation unit from the first conveyor and articles may be transferred from the separation unit to the second conveyor (see Fig. 1) or the storage units, depending on the ID mark and the control unit.

Art Unit: 3653

Surely the carriages, and thus their trays, have coatings thereon, such as paint, plastic, etc. Thus, each tray is inherently coated with a friction increasing material.

Figure 1 clearly shows a return conveyor (1) for returning empty trays.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 63-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canziani.

Canziani foregoes a detailed description of the arrangement of the conveyors themselves. Long conveyors with many turns and deflection stations are always comprised of multiple sections. Particularly, conveyors comprising hundreds of meters of belts or tracks, passing into and out of buildings, underground, etc., require multiple segments. This is done for many reasons. The most important reason is that the segments are easily replaced after terminal failure, as compared with having to replace the entire system. The second-most important reason is to avoid shutdown. Extremely long conveyors such as Canziani's are required to be comprised of multiple segments with independent drives and operating systems so as to avoid catastrophic shutdown. If airport-luggage conveyors did not comprise multiple, independently driven and

Art Unit: 3653

controlled segments, the failure of a single belt, electromagnet, diverter, etc, would cause shutdown of the entire airport. Surely this is to be avoided at all costs.

Inherently, each of the conveyor sections comprising diverter apparatus requires a control unit and data communication means for passing data relating to the identity of an article that is passing from the preceding conveyor section to the given conveyor section. This can be done via a series arrangement, a bus, or by having all of the sections connected directly to a central control. Regardless of which of the three preceding options are used, the data must inherently be passed from one conveyor section to another, as the identification markings are read in the preceding conveyor section prior to diversion in another conveyor section. Further, as the multiple conveyor segments have independent ID marking readers, and the ID mark itself is passed from conveyor to conveyor, the data communication means is also inherent simply in the fact that the conveyors physically pass the information with the trays.

The separation unit must, by all means, comprise data communication means for data regarding whether or not an article is to be transferred to a storage arrangement or the second conveyor. Otherwise it would not function to this end. Clearly, from the disclosure of Canziani, it does indeed function to this end.

Canziani foregoes discussion of an X-ray unit for diverting suspect articles to a rejection area. This omission is due primarily to the lack of necessity in discussing such, and this lack of necessity in discussing such is due to the fact that, in 1988, when the UK patent was filed, intrusive inspection of airway luggage was not so paramount as it is today. As it is required, absolutely required, for airports to use X-ray units to inspect

Art Unit: 3653

check-in luggage, the motivation is not so much implicit in the reference, it is required by law. Placement of the X-ray on any conveyor but the first conveyor would be a waste, as, after the separation unit, the conveyor splits into many sections, and many more not shown in Canziani. Thus, anyone of ordinary skill in the art would apply the X-ray unit to the first conveyor, before the luggage is diverted along variable paths, at which point many X-ray units would be required.

Canziani does not teach a concave surface for the trays. However, it would be obvious to one of ordinary skill in the art to make the supporting surface of the carriages/trays of Canziani at least somewhat concave, as it is known that concave surfaces provide more secure guidance of items on a surface along a conveyor. This is shown, for instance, in US 5,301,790, and in other documents wherein carriages or trays are conveyed at high speeds, and loaded and unloaded quickly.

Allowable Subject Matter

Claims 57, 58, and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Canziani does not teach the means, recited in claim 57, for inserting items into and withdrawing items from the storage means, and certainly there is no reason to provide such, as the carriages of Canziani are self propelled.

Art Unit: 3653

The vertically spaced levels of storage units of claim 58 are not applicable to Canziani, as it would require means for splitting up the carriage-conveyor vertically, which has not been provided nor has it been suggested.

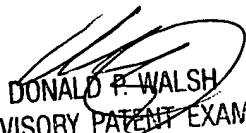
US 3,568,862 to Walkhoff, teaches much of the subject matter of claims 57, 58, and 59, but is not applicable because it does not anticipate all of claim 46, in that it does not discharge the items *from the containers* at the discharge station. To the contrary, the containers, with items loaded thereon, are moved directly into the airplane.

US 3,695,462 does not anticipate claim 46 as it fails to assign a storage unit to a set of articles by any criteria.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel K Schlak whose telephone number is 703-305-0885. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306 - 4173. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308 - 1113.


DONALD P. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

dk